

REMARKS

Claims 1-12 and 14-22 are presently pending.

Claims 1, 7-9, 15-20 and 22 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,423,000 to Teraoka. It is respectfully submitted that claims 1, 7-9, 15-20 and 22, as presently recited, are not anticipated by Teraoka.

With respect to claim 1, and by dependency claims 7-9, 15 and 16, and claim 17, and by dependency claims 18 and 20, Teraoka does not disclose a method of manufacturing a board where a shell having a single hollow interior is formed, filling the entire shell with an expandable material, and preventing the shell from substantially deforming during filling with the expandable material by inserting the shell into a second mold cavity having a shape substantially conforming to the shell, the second mold cavity being different from the first mold cavity, as presently set forth in claims 1 and 17.

With respect to claim 22, Teraoka does not disclose a method of manufacturing a board where a shell having a single hollow interior is formed, filling the entire shell with an expandable material, and preventing the shell from substantially deforming during filling with the expandable material by inserting the shell into a mold cavity having a shape substantially conforming to the shell.

The molded article A disclosed in Teraoka, i.e., Figure 7, comprises two synthetic resin plates molded into a tray-like configuration. The tray-like configuration includes connected tubular portions 52 separated from a hollow section 54 around the molded article by non-hollow portions 55. (Col. 7, ll. 45-61.) Thus, the molded article A has at least a pair of hollow interiors and lacks a single hollow interior.

Teraoka discloses that only the hollow section 54 around the molded article A is filled with a foamable synthetic resin material – not the connected tubular portions 52. Thus, there is no disclosure in Teraoka that the entire molded article is filled with an expandable material. Indeed, Teraoka suggests that the connected tubular portions 52 must not be filled with the foamable synthetic resin material by disclosing that a heat transfer medium such as water passes therethrough. (Col. 10, ll. 3-6.)

Teraoka states that the molded article A is fitted in a wooden mold or the like, and then a bottom plate 23 and a holding plate B are put on the molded article A. Then, a

foamable synthetic resin material is injected into the upper tray-like section 25 of the molded article A through openings 24 provided in the bottom plate 24 and the holding plate B. Given this sequence of steps, and the result illustrated in Figure 15, the wooden mold or the like does not have a cavity with a shape substantially conforming to either the connected tubular portions 52 or the hollow section 55. Indeed, during the filling of hollow section 55, the fact that the space between the bottom plate 23, the surface of the connected tubular portions 52 and the adjacent portion the upper tray-like section 25 is also filled would prevent the wooden mold from conforming to the adjacent portion of the upper tray-like section and thus could permit that portion to deform during filling.

Turning now to claim 19, Teraoka does not disclose a generally planar polymer shell having first and second sheets of material with perimeters bonded together to form periphery edges of the board free from attachment to anything other than the shell itself, as set forth in claim 19. The Office action defines the "board" as being the hollow wall section 54. However, that section is not generally planar, as recited in claim 19, but rather has multiple steps, as shown in Figure 15. In contrast, and by way of example, the boards illustrated in Figures 1-3 of the present application are generally planar. Furthermore, the hollow wall section 54 has periphery edges that are attached to the tubular portions 52, and thus are not free from attachment to anything other than itself.

Claim 21 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Teraoka. Given the above discussion of claim 19, from which claim 21 depends, it is respectfully submitted that claim 21 is not unpatentable over Teraoka.

Claims 2-5 and 10-14 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Teraoka in view of U.S. Patent No. 4,116,736 to Sanson. It is respectfully submitted that claims 2-5 and 10-14 are not unpatentable over Teraoka in view of Sanson. Given the above discussion of Teraoka with respect to claim 1, from which claims 2-5, 10-12 and 14 depend, it is respectfully submitted that claims 2-5, 10-12 and 14 are not unpatentable over Teraoka in view of Sanson. In addition, and as discussed in the prior Amendment, Sanson explicitly teaches away from the the use of multiple molds by describing such methods as being disadvantageous: "A disadvantage of this arrangement lies in the fact that a separate operation and apparatus are required to provide the preliminary shaping of the sheets into

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their desired configured form, something which represents additional labor requirements and increased complexity of production equipment." (Col. 1, ll. 43-49.)

For the reasons set forth above, claims 1-12 and 14-22 are believed to be allowable, and reconsideration and allowance of claims 1-12 and 14-22 are respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required in this application to Deposit Account No. 06-1135.

Respectfully submitted,

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